



P.B. 5818 - Patentaan 2
2280 HV Rijswijk (ZH)
☎ (070) 340 2040
Tx 31651 epo nl
FAX (070) 340 3016

C 12-1002
Europäisches
Patentamt
Zweigstelle in
Den Haag
Recherchen-
abteilung

Eu :an
Pa : Office
Branch at
The Hague
Search
Division

Office européen
des brevets
Département à
La Haye
Division de la
recherche

Hallybone, Huw George
Carpmaels and Ransford,
43 Bloomsbury Square
London WC1A 2RA
GRANDE BRETAGNE

RECEIVED
18 SEP 2002
CARPMAELS & RANSFORD
ACTIONED

✓ HG H

P 0311 03EP

Datum/Date
12.09.02

Zeichen/Ref./Réf. GWS/22922	Anmeldung Nr./Application No./Demande n°./Patent Nr./Patent No./Brevet n° 99935649.6-2404/US9916174
Anmelder/Applicant/Demandeur//Patentinhaber/Proprietor/Titulaire INVITROGEN CORPORATION	

COMMUNICATION

The European Patent Office herewith transmits the supplementary partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within ONE MONTH after notification of this communication.

If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,-) or the equivalent applicable on the date of payment is payable.

This applies also to the search fees requested under Rule 46(1) EPC.

See also OJ EPO 06/1999, 405.

Moreover, the Search Division considers that the present European patent application does not comply with the provisions of the European Patent Convention to such an extent that it is not possible to carry out a meaningful search into the state of the art on the basis of some of the claims; reference is made to sheet C, which is attached to the search report.

☐ The abstract was modified by the Search Division and the definitive text is attached to the present communication.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) attached as well.

Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement to OJ EPO 02/1999.



REGISTERED LETTER



Claim(s) searched completely:
1-28

Claim(s) searched incompletely:
29-32

Reason for the limitation of the search:

Claims 29-32 use the terms "treating or manipulating"; as these terms have no recognized and well-defined technical meaning, said claims 29-32 relate to an extremely large number of possible methods. Support within the meaning of Article 84 EPC and/or disclosure within the meaning of Article 83 EPC is to be found, however, for only a very small proportion of the methods claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the methods disclosed explicitly on page 3, 1 14-16.



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-25

Composition comprising a matrix and one or more vectors;
method for storage of one or more vectors comprising
contacting vectors with a cellulose based solid matrix or a
micromesh synthetic plastic matrix and storing them.

2. Claims: 26-28

Method of isolating or purifying vectors comprising
contacting vectors in a sample with a solid medium or matrix
and isolating the vectors from the sample

3. Claims: 29-32

Method for treating or manipulating one or more vectors
comprising contacting a sample containing vectors with a
matrix and treating or manipulating the vectors

The common concept linking together the 3 different groups of inventions (see herein above) is the composition comprising vectors and a matrix. However, said concept is well-known in the art (see D1, p 8, last par to p 9, first par; D2, claim 1 and example 2). The remaining contribution of each of the inventions over the above known concept is in claims 1 and 11 no polystyrene coating, in claim 26 an isolation/purification step and in claim 29 the treatment/manipulation step. Therefore, the groups of inventions are not so linked as to form a single general inventive concept.

Thus, the requirements for unity of the invention referred to in Article 82 EPC are not fulfilled (lack of unity a posteriori).

The application has been divided into the above groups of inventions which individually are considered to meet the requirement of unity. If additional fees are paid for one or more of the, as yet, unsearched inventions, the subsequent searches might reveal prior art which leads to a finding of lack of unity a posteriori within one or more of the, as yet, unsearched inventions. Should this be the case, as a rule, no further invitation to pay additional fees will be issued. Only the first identified invention in each group of inventions, for which additional search fees have been paid in due time and which subsequently is considered to lack unity, will be searched.



Eur pean Patent
Office

**SUPPLEMENTARY
PARTIAL EUROPEAN SEARCH REPORT**
und r Rule 46, paragraph 1 of the European Patent
Conv ntion

Application Number

EP 99 93 5649

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	US 5 496 562 A (BURGOYNE LEIGH A) 5 March 1996 (1996-03-05) * column 7, line 22 - column 8, line 2; claims 1,2,5 * * column 4, line 61 - line 63 * * column 2, line 22 - line 23 * ---	1-25	C12Q1/00 C12Q1/70 A61K9/14
X	WO 96 39813 A (FLINDERS TECHNOLOGIES PTY LTD) 19 December 1996 (1996-12-19) * abstract; claims 1,4,6,9,21,22 * * page 8, line 25 - page 9, line 16 * * page 10, line 31 * * page 8, last paragraph; claim 16 * --- -/--	1-25	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			C12Q A61K
LACK OF UNITY OF INVENTION			
The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:			
see sheet B			
The present partial European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.			
Place of search		Date of completion of the search	Examiner
MUNICH		8 August 2002	Bigot-Maucher, C
CATEGORY OF CITED DOCUMENTS			
X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document			
T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document			



European Patent
Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number
EP 99 93 5649

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	ROGERS C ET AL: "Bacterial typing: storing and processing of stabilized reference bacteria for polymerase chain reaction without preparing DNA--an example of an automatable procedure." ANALYTICAL BIOCHEMISTRY. UNITED STATES 1 MAY 1997, vol. 247, no. 2, 1 May 1997 (1997-05-01), pages 223-227, XP001095657 ISSN: 0003-2697 * abstract * * page 223, column 2, paragraph 3 * * page 224, column 2, last paragraph - page 225, column 1, paragraph 1 * * page 226, column 1, paragraph 3 *	1-25	
E	WO 00 40697 A (LIFE TECHNOLOGIES INC) 13 July 2000 (2000-07-13) * abstract; claims 1,2,14,16,19 * * page 30, paragraph 3 *	1-10	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
T	NATARAJAN P ET AL: "Paper-based archiving of mammalian and plant samples for RNA analysis." BIOTECHNIQUES. UNITED STATES DEC 2000, vol. 29, no. 6, December 2000 (2000-12), pages 1328-1333, XP001093852 ISSN: 0736-6205 * page 1328, column 1, paragraph 1 *	1-25	

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 93 5649

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

08-08-2002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5496562	A	05-03-1996	US 6294203 B1	25-09-2001
			US 6322983 B1	27-11-2001
			US 5756126 A	26-05-1998
			US 5807527 A	15-09-1998
			US 5976572 A	02-11-1999
			US 5985327 A	16-11-1999
			WO 9003959 A1	19-04-1990
			CA 2000192 A1	05-04-1990
WO 9639813	A	19-12-1996	US 5756126 A	26-05-1998
			US 5972386 A	26-10-1999
			AU 691114 B2	07-05-1998
			AU 5887696 A	30-12-1996
			WO 9639813 A1	19-12-1996
			CN 1192648 A	09-09-1998
			EP 0849992 A1	01-07-1998
			US 6294203 B1	25-09-2001
WO 0040697	A	13-07-2000	US 5976572 A	02-11-1999
			AU 2599800 A	24-07-2000
			EP 1141234 A1	10-10-2001
			WO 0040697 A1	13-07-2000

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: ROBERT W. ESMOND
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE N.W.
SUITE 600
WASHINGTON DC 20005-3934

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION

(PCT Rule 44.1)

RECEIVED

NOV 15 1999

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
11/15/99
11/16/99
11/17
PPJ
BID

Date of Mailing (day/month/year)	09 NOV 1999
Applicant's or agent's file reference 0942.461PC02	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/US99/16174	International filing date (day/month/year) 16 JULY 1999
Applicant LIFE TECHNOLOGIES, INC.	

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO

34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

Response to Search (1/9/00) 12-9-99
Rule 152 IDS (2/9/00) 1-9-00
Published (1/16/00) 12-16-99

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

Chpt II Demand (2/16/00) 11-16-99; 1-16-00

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

Chpt I N.P. (3/16/00) 12-16-99; 2-16-00

- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 bis 1 and 90 bis 3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer IREM YUCEL Telephone No. (703) 308-0196
---	--

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 0942.461PC02	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US99/16174	International filing date (<i>day/month/year</i>) 16 JULY 1999	(Earliest) Priority Date (<i>day/month/year</i>) 16 JULY 1998
Applicant LIFE TECHNOLOGIES, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (See Box I).

2. ☐ Unity of invention is lacking (See Box II).

3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing

☐ filed with the international application.
☐ furnished by the applicant separately from the international application,

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ transcribed by this Authority.

4. With regard to the title, ☒ the text is approved as submitted by the applicant.
☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is:
 Figure No. _____

☐ as suggested by the applicant.
☐ because the applicant failed to suggest a figure.
☐ because this figure better characterizes the invention.

☒ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/16174

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : C12Q 1/70, 15/63; A61K 9/14

US CL : 435/6, 320.1; 424/488

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/6, 320.1; 424/488

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONEElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Extra Sheet.**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,496,562 A (BURGOYNE) 05 MARCH 1996, see entire document.	1-32
X	WO 96/39813 A1 (FLINDERS TECHNOLOGIES PTY, LTD.), see entire document.	1-32

☐ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

18 OCTOBER 1999

Date of mailing of the international search report

09 NOV 1999

 Name and mailing address of the ISA/US
 Commissioner of Patents and Trademarks
 Box PCT
 Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

IREM YUCEL

Telephone No. (703) 308-0196

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US99/16174

B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

USPATFUL, CAPLUS, MEDLINE

Terms: Inventors' names, archiv? or stor?, matri?, nucleic acid?, DNA, RNA, solid support?, filter?, papera?
cellulose?, membrane?, dot blot, colony hybrid?, sample?, maintain?